

Claytonia Chamissoi Ledeb. in Minnesota

JOHN M. HOLZINGER

On August 7 of the present year of 1928, Mr. E. L. King agreed to establish a special plant refuge for the station of *Claytonia chamissoi*, since he owns the ground. It was on June 19, 1889, that I discovered a colony of this high altitude Rocky Mountain species in a short creek close to the west base of Queen's Bluff, on the bank of the Mississippi River. Its home is in the spray of the water falls along the crest range of the Rockies, 5000 to 7000 ft. above sea-level. Its Minnesota station is a bare 600 ft., or little more, above sea-level. So the colony is 2000 to 3000 miles from its natural home. A lonesome outpost.

After studying the plant for several seasons, and explaining certain discrepancies, I announced my find in the *Plant World* of March, 1901. By then I had become convinced that the plant is a perennial: it was described as an annual. It propagates by delicate stolons, which terminate in light flesh colored bulbils the size of rice grains. These are the vital perennating part of the plant. And the complete plant is figured in the *Plant World*, showing this mode of propagation.

Now, Britton and Brown's *Manual* (1901) includes Minnesota in the range of this *Claytonia*. But a little reflection will show that the Queen's Bluff station is in no ordinary sense an extension of the range. For in these 40 years—not a single new station has been reported from any of the states between the Rockies and the Mississippi River. The plant looks like a remarkable relict of the Ice Age. If so, it must have existed, and persisted, in its present obscure nook not less than 10,000 years. Some glacial geologists, to whom I have submitted the problem—Drs. Kay, Trowbridge, Sardeson—speak even of 100,000 years.

Claytonia chamissoi on the west bank of the Father of Waters, has thus a distinction of its own: it is entirely out of its range. If the theory is correct,—that it was brought by a glacier,—it also has the dignity derived from great age.

How could it persist thousands of years in one station?

Two factors combine to make this possible. First, the perennating bulbils referred to above; second, the seepage springs which line the short deeply shaded creek. Water perennially oozes out from the lower silurian sandrock on a level with the creek, keeping wet the carbonaceous mud forming from the decaying vegetation; but the key to the persistence of the plant is, that it is a strong hydrophyte. In its isolated station it seems to have long forgotten to produce seed since I have looked many times for ripe seeds, but have never found them. The reliance in this patch is entirely on the bulbils.

WINONA, MINNESOTA

Note on the Occurrence of *Oxypolis filiformis* in the Bahamas

L. J. K. BRACE

On a recent trip to the swamps that abound and form such a large part of New Providence I observed a white-flowered plant in both scattered and group state among the dwarfed plants of *Mariscus jamaicensis* (Crantz) Britton [*Cladium jamaicense* Crantz] in the swamps' margins.

This proved to be DeCandolle's *Tiedemannia teretifolia*,¹ which had not been gathered in by the various collecting parties observing for the "Bahama Flora." What makes it more interesting is the fact, as Dr. Britton has informed me, a distinct species has turned up in Cuba.²

This raises the question whether this latter plant may not also be found in these islands, presumably in the southern portion of the archipelago. Time alone can show this. It seems a pity more interest is not shown in the biology of these

¹ The synonymy is:—*Oxypolis filiformis* (Walt.) Britton, Mem. Torr. Club 5: 239. 1894. *Oenanthe filiformis* Walt. Fl. Car. 113. 1788. *Oenanthe teretifolia* Muhl. Cat. 31. 1813. *Tiedemannia teretifolia* DC. Mem. Omb. 51. pl. 12. 1829.

On the continent this species ranges from southern Virginia to Florida and westward to Louisiana. N. L. B.

² *Oxypolis Bakeri* (Wolff), Britton & Wilson. *Tiedemannia Bakeri*, Wolff, in Urban, Symb. Ant. 5: 452. 1908.

This closely resembles *O. filiformis* but has larger longer fruit. It is known only from marshes on the southern coasts of Havana and Santa Clara Provinces. N. L. B.